CLAIM AMENDMENTS

Please amend the claims as follows:

1. (original) A combiner for use in a spatial diversity radio receiver which receives multiple data signals through spaced apart antennae, said combiner comprising:

(a) means for receiving strength-indicative signals, each said strength-indicative signal being indicative of the strength of one of said received data signals, and demodulated data signals;

(b) means for generating control signals responsive to said strength-indicative signals; and,

(c) means for combining in linear proportions determined by said control signals those of said demodulated data signals which are both above a predetermined combiner threshold and differ in strength by less than a predetermined margin, to provide a combined output data signal.

2. (original) A combiner according to claim 1, wherein said combining means produces said output data signal on the basis of only the strongest demodulated data signal where said demodulated data signals differ in strength by more than said predetermined margin.

3. (original) A combiner according to claim 2, wherein said demodulated data signals are combined in proportion to an amount by which they differ relative to said predetermined margin and the greatest proportion is of the strongest of said data signals.

4. (original) A combiner according to claim 3, wherein said margin is between 3dB and 12 dB.

5. (original) A combiner according to claim 4, wherein said margin is 6dB.

6. (original) A combiner according to Claim 5, wherein said generating and combining means are provided by a digital signal processor.

7. (original) A combiner according to claim 6, wherein said generating means comprises means for evaluating said strength-indicative signals.

8. (original) A combiner according to claim 7, wherein said evaluating means comprises means for producing a second derivative signal for each said strength-indicative signal and said control signal is generated according to a predetermined combination of said strength-indicative signals and second derivative signals.

9. (currently amended) A combiner according to claim 7, and further comprising DC bias compensation means for adjusting the relative DC levels of the received demodulated data signals wherein said compensation means calibrates the level of a DC offset signal used for said adjusting when the strengths of said demodulated data signals are above a predetermined DC bias compensation threshold.

10. (original) A combiner for use in a spatial diversity radio receiver which receives multiple data signals through spaced apart antennae, said combiner comprising:

(a) a receiving component configured for receiving strength-indicative signals, each said strength-indicative signal being indicative of the strength of one of said received data signals, and demodulated data signals;

(b) a control signal generating component configured for generating control signals responsive to said strength-indicative signals; and,

(c) a combining component configured for combining in linear proportions determined by said control signals those of said demodulated data signals which are both above a predetermined combiner threshold and differ in strength by less than a predetermined margin, to provide a combined output data signal.

11. (original) A spatial diversity radio receiver comprising: (a) multiple receiving components for receiving data signals through antennae, each said antenna associated with one said receiving component and being spaced apart a predetermined distance, each said receiving component comprising circuitry for providing a signal indicative of the strength of said received data signal and a demodulated data signal; (b) a combiner according to claim 1; and, (c) circuitry for evaluating said combined output data signal.

12. (original) A spatial diversity radio receiver comprising: (a) multiple receiving components for receiving data signals through antennae, each said antenna associated with one said receiving component and being spaced apart a predetermined distance, each said receiving component comprising circuitry for providing a signal indicative of the strength of said received data signal and a demodulated data signal; (b) a combiner according to claim 2; and, (c) circuitry for evaluating said combined output data signal.

13. (original) A spatial diversity radio receiver comprising: (a) multiple receiving components for receiving data signals through antennae, each said antenna associated with one said receiving component and being spaced apart a predetermined distance, each said receiving component comprising circuitry for providing a signal indicative of the strength of said received data signal and a demodulated data signal; (b) a combiner according to claim 4; and, (c) circuitry for evaluating said combined output data signal.

14. (original) A spatial diversity radio receiver comprising: (a) multiple receiving components for receiving data signals through antennae, each said antenna associated with one said receiving component and being spaced apart a predetermined distance, each said receiving component comprising circuitry for providing a signal indicative of the strength of said received data signal and a demodulated data signal; (b) a combiner according to claim 8; and, (c) circuitry for evaluating said combined output data signal.

15. (original) A spatial diversity radio receiver comprising: (a) multiple receiving components for receiving data signals through antennae, each said antenna associated with one said receiving component and being spaced apart a predetermined distance, each said receiving component comprising circuitry for providing a signal indicative of the strength of said received data signal and a demodulated data signal; (b) a combiner according to claim 9; and, (c) circuitry for evaluating said combined output data signal.

16. (original) A spatial diversity radio receiver comprising: (a) multiple receiving components for receiving data signals through antennae, each said antenna associated with one said receiving component and being spaced apart a predetermined distance, each said receiving component comprising circuitry for providing a signal indicative of the strength of said received data signal and a demodulated data signal; (b) a combiner according to claim 10; and, (c) circuitry for evaluating said combined output data signal.